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EXAMINER	
BODDIE, WILLIAM	

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2629	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/516,847	BERKEL VAN, CORNELIS	
	Examiner	Art Unit	
	WILLIAM L. BODDIE	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 July 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In an amendment dated July 16th, 2009, the Applicant traversed the rejection of claims 1-35. Currently claims 1-35 are pending.

Response to Arguments

2. Applicant's arguments filed July 16th, 2009 have been fully considered but they are not persuasive.

3. On pages 9-11 of the Remarks the Applicants traverse the rejections of claims 1-35. The main and sole argument appears to revolve around the Makinwa reference. Specifically Applicants argue that Makinwa does not disclose a coil for coupling to ground that extends substantially the length of the user-holdable device.

The Applicants argue that the Makinwa coil is capacitively coupled to the display screen and not to ground. Instead it is a terminal side which is used for coupling to the ground, and Makinwa does not teach or suggest the terminal side is a coil.

4. The Examiner respectfully disagrees. While Makinwa does indeed disclose that the coil capacitively couples to the display screen, this is not seen as having any bearing on whether Makinwa's coil is also coupled to ground. Additionally the Examiner maintains that the 302 element in figure 3 of Makinwa is still a part of the 202 coil. These two statements are fully supported by the specification of Makinwa, most notably in column 3, lines 41 – 43. The sentence, therein, reads; "[b]ecause one side 302 **of the coil** is capacitively **coupled to ground**, for example via a hand of the user, an electric signal arises at the side 304 of the coil. (emphasis added)." Makinwa clearly

discloses that element 302 is indeed a part "of the coil." Additionally the coil is "coupled to ground."

5. Applicants additionally argue that Makinwa does not disclose that the coil couples to ground along *substantially the length of the user-holdable device*.

6. Regardless of the whether such an argument is correct or not, the nature of the proposed combination of Katabami, Kable and Makinwa does not require that Makinwa disclose the coil extend substantially the length of the device. The combination considered is to first extend the coupling means of Katabami the length of the device as taught by Kable. Thereafter, it is seen as obvious to replace the coupling means (which extend along the length of the device) of Katabami and Kable with the capacitively coupling coil of Makinwa. As such the end product is a coupling coil of Makinwa which extends substantially the length of the device.

7. As shown above the rejection is seen as proper and is therefore maintained.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-2, 4, 9-15, 20-22 and 24-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237).

With respect to claim 1, Katabami discloses, a user input system (fig. 10, for example), comprising:

means for (146-7 in fig. 10) generating a alternating magnetic field (145 in fig. 10);

a user-held device comprising a resonant circuit (77 and 78 in fig. 10), means for coupling to ground (4 in fig. 10), and

a conducting tip (3 in fig. 10),

the means for coupling to ground being coupled to a first side of the resonant circuit (top side in fig. 10) and the conducting tip being coupled to a second side of the resonant circuit (bottom in fig. 10), the resonant circuit being operable to provide an alternating voltage (92, 93 in fig. 3b; col. 19, lines 5-15) induced from the alternating magnetic field when positioned in the vicinity of the means for generating an alternating magnetic field (92,93 waveforms are induced as a result of the alternating magnetic field 145 in fig. 10); and

means for sensing an output provided at the conducting tip due to the alternating voltage source when the conducting tip is in the vicinity of the means for sensing an output (3-19 in fig. 1a).

Katabami does not expressly disclose that the means for coupling to ground extend along substantially the length of the user-holdable device nor that the means are a coil.

Kable discloses, a user input system (fig. 1), comprising means for coupling to ground along substantially the length of the user-holdable device (12 in fig. 1; col. 4, lines 11-14, col. 5, lines 32-39).

Kable and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to extend the coupling means of Katabami along the length of the stylus as taught by Kable for the benefit of controlling the signals which may be generated through the hand and body of the user (Kable; col. 5, lines 38-39).

Neither Katabami nor Kable disclose that the means for coupling to ground is a coil.

Makinwa discloses, a coil (202 in fig. 2) is capacitively coupled to ground (ground in fig. 3) via a hand of the user (col. 3, lines 42-44).

Makinwa, Kable and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the extended coupling means of Katabami and Kable with the coil of Makinwa for the well-known benefit of more stylus design flexibility, and to provide a cheaper, uni-body pen housing.

With respect to claim 2, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Katabami further discloses, wherein the means for sensing an output (8-19 in fig. 1a) provided by the conducting tip comprises means for determining the strength of the output as sensed at plural locations (each location that the electrodes are crossed is sensed) and means for comparing the plural sensed output strengths to determine a position of the conducting tip relative to the plural locations (fig. 1b).

With respect to claim 4, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Katabami further discloses, wherein the sensing means comprises an electric field sensing reception electrode (7 in fig. 1a; for example) and current sensing circuitry (fig. 1b) for determining a current excited in the electric field sensing reception electrode by an electric field generated by the conducting tip (col. 1, line 59-col. 2, line 5).

With respect to claim 9, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Katabami further discloses, wherein the user-holdable device is for use as a pen or stylus (fig. 1).

With respect to claim 10, Katabami, Makinwa and Kable disclose, a system according to claim 9 (see above).

Katabami further discloses, wherein the conducting tip (3 in fig. 1a) is adapted to provide a writing feel to the user (clearly shaped to effectuate a writing feel; in fig. 1a).

With respect to claim 11, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Katabami, when combined with Makinwa and Kable further discloses, wherein the user-holdable device comprises an external housing by which the user is to hold the user-holdable device (5 in fig. 1a), and wherein the coil for coupling to ground is such that the coupling to ground is made via the user's hand (Makinwa; col. 3, lines 42-44) when the user is holding the user-holdable device (Katabami; col. 7, lines 12-18).

With respect to claim 12, Katabami, Makinwa and Kable disclose, a system according to claim 11 (see above).

Katabami, when combined with Makinwa further discloses, wherein the coil for coupling to ground is further arranged to reduce shielding of the resonant circuit from the magnetic field generated by the means for generating an alternating magnetic field (note the location of the coupling to ground in Makinwa away from the resonant circuit in figs. 2-4).

With respect to claim 13, Katabami, Makinwa and Kable disclose, a system according to claim 11 (see above).

Katabami, when combined with Makinwa further discloses, wherein the housing is made of a dielectric material such that the housing represents the dielectric of a capacitor formed between the coil for couple to ground and the user's hand (Makinwa discloses that the coil (202) capacitively couples with the user's hand. This inherently requires a dielectric material to exist between the coil and the user's hand).

With respect to claim 14, Katabami, Makinwa and Kable disclose, a system according to claim 13 (see above).

Katabami, when combined with Makinwa further discloses, wherein the resonant circuit (Katabami; 77, 78 in fig. 10) is positioned in the user-holdable device at a location away from the coil for coupling to ground (Makinwa; fig. 3) (Katabami; clear from fig. 1a; that the resonance circuit is positioned away from the conduction portion).

With respect to claim 15, Katabami, Makinwa and Kable disclose, a system according to claim 12 (see above).

Katabami, when combined with Makinwa further discloses, wherein the user-holdable device further comprises a coil (Katabami; 4 in fig. 3a) for coupling to ground Makinwa; fig. 3) is further arranged to couple the resonant circuit to the user's hand whilst substantially allowing the magnetic field generated by the means for generating an alternating magnetic field to reach the resonant circuit (Katabami; col. 7, lines 12-18) (Makinwa; col. 3, lines 30-44).

With respect to claims 20-22, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Katabami further discloses, an active matrix LCD display device (col. 1, lines 42-44), wherein the sensing means are arranged to sense the output provided by the conducting tip in an area corresponding to a display area of the LCD (col. 3, lines 14-19).

With respect to claim 24, Katabami discloses a user-holdable device for a user to provide input to a user input system (fig. 10; for example), comprising:

a resonant circuit (77 and 78 in fig. 10);

means for coupling to ground (4 in fig. 10); and

a conducting tip (3 in fig. 10);

the means for coupling to ground being coupled to a first side of the resonant circuit (top side in fig. 10) and the conducting tip being coupled to a second side of the resonant circuit (bottom in fig. 10), the resonant circuit (77 and 78 in fig. 10) being operable to provide an alternating voltage (92, 93 in fig. 3b; col. 19, lines 5-15) induced from an alternating magnetic field (92,93 waveforms are induced as a result of the alternating magnetic field 145 in fig. 10).

Katabami does not expressly disclose that the means for coupling to ground extend along substantially the length of the user-holdable device.

Kable discloses, a user input system (fig. 1), comprising means for coupling to ground along substantially the length of the user-holdable device (12 in fig. 1; col. 4, lines 11-14, col. 5, lines 32-39).

Kable and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to extend the coupling means of Katabami along the length of the stylus as taught by Kable for the benefit of controlling the signals which may be generated through the hand and body of the user (Kable; col. 5, lines 38-39).

Neither Katabami nor Kable disclose that the means for coupling to ground is a coil.

Makinwa discloses, a coil (202 in fig. 2) is capacitively coupled to ground (ground in fig. 3) via a hand of the user (col. 3, lines 42-44).

Makinwa, Kable and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the extended coupling means of Katabami and Kable with the coil of Makinwa for the well-known benefit of more stylus design flexibility, and to provide a cheaper, uni-body pen housing.

With respect to claim 25, Katabami, Kable and Makinwa disclose, a device according to claim 24 (see above).

Katabami further discloses, wherein the user-holdable device is for use as a pen or stylus (fig. 1).

With respect to claim 26, Katabami, Kable and Makinwa disclose, a device according to claim 25 (see above).

Katabami further discloses, wherein the conducting tip (3 in fig. 1a) is adapted to provide a writing feel to the user (clearly shaped to effectuate a writing feel; in fig. 1a).

With respect to claim 27, Katabami, Kable and Makinwa disclose, a device according to claim 24 (see above).

Katabami, when combined with Makinwa further discloses, wherein the user-held device comprises an external housing by which the user is to hold the user-holdable device (Katabami; 5 in fig. 1a), and wherein the coil for coupling to ground is such that the coupling to ground is made via the user's hand (Makinwa; col. 3, lines 30-44) when the user is holding the user-holdable device (Katabami; col. 7, lines 12-18).

With respect to claim 28, Katabami, Makinwa and Kable disclose, a system according to claim 24 (see above).

Katabami, when combined with Makinwa further discloses, wherein the coil for coupling to ground is further arranged to reduce shielding of the resonant circuit from the magnetic field generated by the means for generating an alternating magnetic field (note the location of the coupling to ground in Makinwa away from the resonant circuit in figs. 2-4).

With respect to claim 29, Katabami, Makinwa and Kable disclose, a system according to claim 27 (see above).

Katabami, when combined with Makinwa further discloses, wherein the housing is made of a dielectric material such that the housing represents the dielectric of a capacitor formed between the coil for couple to ground and the user's hand (Makinwa discloses that the coil (202) capacitively couples with the user's hand. This inherently requires a dielectric material to exist between the coil and the user's hand).

With respect to claim 30, Katabami, Kable and Makinwa disclose, a device according to claim 29 (see above).

Katabami, when combined with Makinwa further discloses, wherein the resonant circuit (Katabami; 77, 78 in fig. 10) is positioned in the user-held device at a location away from the conduction portion (Katabami; 1 in fig. 1a) of the housing (Katabami; clear from fig. 1a; that the resonance circuit is positioned away from the conduction portion) (Makinwa; discloses the coil for coupling to ground; fig. 3).

With respect to claim 31, Katabami, Makinwa and Kable disclose, a system according to claim 28 (see above).

Katabami, when combined with Makinwa further discloses, wherein the coil for coupling to ground (Makinwa; fig. 3) is further arranged to couple the resonant circuit to the user's hand whilst substantially allowing the magnetic field generated by the means for generating an alternating magnetic field to reach the resonant circuit (Katabami; col. 7, lines 12-18) (Makinwa; col. 3, lines 30-44).

10. Claims 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Stein et al. (US 5,365,461) and further in view of Kable (US 4,695,680) and Makinwa (US 5,889,237)..

With respect to claim 33, Katabami discloses, a method of sensing user input (5 in fig. 1a), comprising:

generating an alternating magnetic field that passes in to a user-held device (145 in fig. 10);

inducing an alternating voltage in the user-held object from the alternating magnetic field (92, 93 waveforms are induced as a result of the alternating magnetic field 145 in fig. 10);

providing an output from the alternating voltage at a conducting tip (3 in fig. 10) of the user-held device (3992, 93 in fig. 3b; col. 19, lines 5-15); and

sensing the output when the user-held device is positioned such that the conducting tip is in the vicinity of a sensing means (3-19 in fig. 1a; also note fig. 1b).

Katabami does not expressly disclose time-multiplexing or sensing a user's finger.

Stein discloses, sensing, by time-multiplexing (col. 4, lines 52-58), an output when a user-held device (22 in fig. 1) is positioned such that a conducting tip (tip in fig. 1) is in the vicinity of a sensing means (14-17 in fig. 1), or when a user's finger is positioned or moved such that the user's finger is in the vicinity of the sensing means (28 in fig. 1);

wherein said time-multiplexing (col. 4, lines 52-58) provides a means for distinguishing between sensing of the user's finger and sensing of the user-holdable device (col. 4, lines 52-58; figs. 3-4).

Katabami and Stein are analogous art because they are from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system thereby providing alternate input means.

Katabami does not expressly disclose that the means for coupling to ground extend along substantially the length of the user-held device nor that the means are a coil.

Kable discloses, a user input system (fig. 1), comprising means for coupling to ground along substantially the length of the user-held device (12 in fig. 1; col. 4, lines 11-14, col. 5, lines 32-39).

Kable, Stein and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to extend the coupling means of Katabami and Stein along the length of the stylus as taught by Kable for the benefit of controlling the signals which may be generated through the hand and body of the user (Kable; col. 5, lines 38-39).

Neither Katabami nor Kable disclose that the means for coupling to ground is a coil.

Makinwa discloses, a coil (202 in fig. 2) is capacitively coupled to ground (ground in fig. 3) via a hand of the user (col. 3, lines 42-44).

Makinwa, Kable, Stein and Katabami are analogous art because they are both from the same field of invention namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the extended coupling means of Katabami, Stein and Kable with the coil of Makinwa for the well-known benefit of more stylus design flexibility, and to provide a cheaper, uni-body pen housing.

With respect to claim 34, Katabami, Makinwa, Kable and Stein disclose, a system according to claim 33 (see above).

Katabami does not expressly disclose, a resistive sheet.

Stein discloses, wherein the means for sensing the user's finger comprises a resistive sheet (col. 3, lines 42-46) and current measuring means (14-17 in fig. 1)

arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet (col. 4, lines 7-14).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 35, Katabami, Makinwa, Kable and Stein disclose, a method according to claim 33 (see above).

Katabami further discloses, wherein the sensing means comprises an electric field sensing reception electrode (7 in fig. 1a; for example) and current sensing circuitry (fig. 1b) for determining a current excited in the electric field sensing reception electrode by an electric field generated by the conducting tip (col. 1, line 59-col. 2, line 5).

11. Claims 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237) and Yamanami et al. (US 4,902,858).

With respect to claim 5, Katabami, Makinwa and Kable disclose, a system according to claim 4 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose, wherein the sensing means is arranged to substantially filter out currents produced in the electric field sensing reception electrode by electric fields generated by the means for generating an alternating magnetic field.

Yamanami discloses, wherein sensing means (fig. 3) are arranged to substantially filter out currents produced in an electric field sensing reception electrode (13 in fig. 3) by electric fields generated by the means for generating an alternating magnetic field (col. 7, lines 26-32)

Yamanami, Kable, Makinwa and Katabami are analogous art because they are from the same field of endeavor namely, stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include in Makinwa, Katabami and Kable the filtering means of Yamanami for the well-known benefits of increasing the sensitivity and s/n level of the output signal.

With respect to claim 6, Yamanami, Kable, Makinwa and Katabami disclose, a system according to claim 5 (see above).

Katabami, when combined with Yamanami, Makinwa and Kable, discloses, wherein the filtering out is performed using a difference in phase between the electric field generated by the means for generating an alternating magnetic field and the electric field generated by the conducting tip (Yamanami; col. 7, lines 26-32).

12. Claims 7-8, 19 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237) and Ely et al. (US 6,667,740).

With respect to claim 7, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose shielding.

Ely discloses, wherein shielding is provided to substantially block any electric field generated by the means for generating an alternating magnetic field and substantially allow to pass the magnetic field generated by the means for generating an alternating magnetic field (21 in fig. 2; col. 7, lines 31-38).

Ely, Kable, Makinwa and Katabami are analogous art because they are from the same field of endeavor namely stylus based cursor control.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the shielding of Ely in the device of Katabami, Kable, and Makinwa for the benefit of enhancing the sensitivity of the digitizer (Ely; col. 7, lines 35-38).

With respect to claim 8, Katabami, Makinwa and Kable disclose, a system according to claim 4 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose determining the distance between the conducting tip and the electrode.

Ely discloses, the system is arranged to determine the distance of the tip from the plane of the electric field reception electrode, compare the determined distance to a threshold value, and if the determined value is less than or equal to the threshold then treat the conducting tip position as input and if the determined value is greater than the threshold then not treat the conducting tip position as input (Ely; col. 11, lines 22-61).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the distance determination of Ely in the device of Katabami, Makinwa and Kable for the benefit of detecting stylus movements up and down (Ely; col. 11, lines 22-61).

With respect to claim 19, Katabami and Kable disclose, a system according to claim 1 (see above).

Neither Kable nor Katabami expressly disclose additional user-holdable devices.

Ely discloses a system comprising one or more further user-holdable devices, respective user-holdable devices having different tuned frequencies (col. 23, lines 59-63).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the additional devices of Ely in the system of Katabami and Kable for the well-known benefit of allowing multiple users to interact with the system.

With respect to claim 32, Katabami, Makinwa and Kable disclose, a system according to claim 24 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose additional user-holdable devices.

Ely discloses a system comprising one or more further user-holdable devices, respective user-holdable devices having different tuned frequencies (col. 23, lines 59-63).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the additional devices, each with its own different tuned frequency, of Ely in the system of Katabami, Makinwa, and Kable for the well-known benefit of allowing multiple users to interact with the system.

13. Claims 3 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237) and Stein et al. (US 5,365,461).

With respect to claim 3, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Neither Makinwa, Kable nor Katabami expressly disclose, a resistive sheet.

Stein discloses, wherein the means for sensing the user's finger comprises a resistive sheet (col. 3, lines 42-46) and 33current measuring means (14-17 in fig. 1) arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet (col. 4, lines 7-14).

Katabami, Makinwa, Kable and Stein are analogous art because they are from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Katabami, Makinwa and Kable.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 16, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Neither Kable, Makinwa nor Katabami does not expressly disclose a means for sensing a user's finger.

Stein discloses, a user input device comprising a means for both sensing a user's finger and a stylus (fig. 1).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Katabami, Makinwa and Kable.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 17, Katabami, Kable, Makinwa and Stein disclose, a system according to claim 16 (see above).

Katabami, when combined with Stein, Makinwa and Kable, further discloses, wherein the sensing means comprises a resistive sheet (Stein; col. 3, liens 42-46) and current measuring means (14-17 in fig. 1) arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet (col. 4, lines 7-14), and wherein the means for sensing the user's finger comprises the resistive sheet (Stein; col. 3, lines 42-46), the current measuring means (Stein; 14-17 in fig. 1), and means for distinguishing between sensing of the user's finger and sensing of the user-holdable device (Stein; col. 2, lines 19-21).

14. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237) and Teterwak (US 5,777,898).

With respect to claim 16, Katabami, Makinwa and Kable disclose, a system according to claim 1 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose a means for sensing a user's finger.

Teterwak discloses, a user input device comprising a means for both sensing a user's finger and a stylus (col. 5, lines 15-21).

Katabami, Kable, Makinwa and Teterwak are analogous art because they are all from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Teterwak in the device of Katabami, Makinwa and Kable.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 18, Katabami, Kable, Makinwa and Teterwak disclose, a system according to claim 16 (see above).

Katabami, when combined with Teterwak, Makinwa and Kable, further discloses, wherein the sensing means comprises an electric field sensing reception electrode (Katabami; 7 in fig. 1a; for example) and current sensing circuitry (Katabami; fig. 1b) for determining a current excited in the electric field sensing reception electrode by an electric field generated by the conducting tip (Katabami; col. 1, line 59-col. 2, line 5), and wherein the means for sensing a user's finger comprises an electric field sensing transmission electrode (Teterwak; col. 5, lines 42-46), the electric field sensing reception electrode (Teterwak; col. 5, lines 21-26), and circuitry for sensing changes cause by the user's finger to a current excited in the electric field sensing reception

electrode by an electric field generated by the electric field sensing transmission electrode (Teterwak; 16-19 in fig. 1).

15. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Katabami (US 5,528,002) in view of Kable (US 4,695,680) and further in view of Makinwa (US 5,889,237) and Colgan et al. (US 6,204,897).

With respect to claim 23, Katabami, Makinwa and Kable disclose, a system according to claim 20 (see above).

Neither Kable, Makinwa nor Katabami expressly disclose that the sensing means comprises a resistive sheet and current measuring means, and wherein the resistive sheet is provided by a common electrode of the display device.

Colgan discloses, wherein the sensing means comprises a resistive sheet (201, 203 in fig. 7) and current measuring means (current sense circuitry in fig. 12) arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet, and wherein the resistive sheet is provided by a common electrode of the display device (col. 2, lines 48-52).

Colgan, Kable, Makinwa and Katabami are all analogous art because they are all from the same field of endeavor namely, touch screen design circuitry.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the sensing means of Katabami, Makinwa and Kable with the resistive sheet and current measuring means as taught by Colgan.

The motivation for doing so would have been the well-known benefit of reducing the number of manufacturing steps.

Conclusion

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM L. BODDIE whose telephone number is (571)272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Sumati Lefkowitz/
Supervisory Patent Examiner, Art Unit 2629

/W. L. B./
Examiner, Art Unit 2629
10/9/09